

**AMENDMENTS TO THE CLAIMS**

1 1. (Currently Amended) A computer-implemented method for generating and using a  
2 mapping scheme, the method comprising:  
3 receiving commands from a user, wherein said commands establish a mapping  
4 between one or more attributes of a source and one or more attributes of a  
5 target;  
6 based on said commands, automatically generating a mapping scheme that represents  
7 said mapping, wherein said mapping includes at least one of:  
8 multiple attributes of said source mapped to a single attribute of said target;  
9 and  
10 multiple attributes of said target mapped to a single attribute of said source;  
11 and  
12 using said mapping scheme to perform a single transformation that moves a set of  
13 data directly from said source into said target without materializing the entire  
14 set of data separate from said source and said target during said  
15 transformation;  
16 wherein said source is one of a relational database and an XML document and said  
17 target is the other of said relational database and said XML document;  
18 wherein the one or more attributes, of the one of said source and said target that is  
19 said relational database, correspond to one or more columns in one or more  
20 tables in said relational database.

1 2-3. (Canceled)

1 4. (Original) The method of claim 1, wherein said mapping scheme further includes  
2 instructions on how to collapse a number of attributes of said source into a smaller  
3 number of attributes of said target.

1 5. (Original) The method of claim 1, wherein said mapping scheme further includes  
2 instructions on how to expand a number of attributes of said source to a greater  
3 number of attributes of said target.

1 6. (Original) The method of claim 1, wherein:  
2 the step of receiving commands from a user includes receiving user input that  
3 specifies a condition, and an action associated with the condition; and  
4 the method further comprises the steps of  
5 performing an operation that includes converting data, based on said mapping  
6 scheme, from the source to a format associated with the target;  
7 during performance of said operation, performing the steps of  
8 determining whether the condition is satisfied; and  
9 if the condition is satisfied, then performing said action.

1 7. (Original) The method of claim 1, wherein:  
2 the step of receiving commands from a user includes receiving user input that  
3 specifies a specific set of instructions; and  
4 the method further comprises the steps of  
5 performing an operation that includes converting data, based on said mapping  
6 scheme, from the source to a format associated with the target; and  
7 during performance of said operation, executing the specific set of instructions  
8 to affect said operation.

1 8. (Original) The method of claim 1, wherein:  
2 the step of receiving commands from a user includes receiving user input that  
3 declares a variable to which values can be assigned; and  
4 the method further comprises the steps of  
5 performing an operation that includes converting data, based on said mapping  
6 scheme, from the source to a format associated with the target; and  
7 during performance of said operation, using said variable.

1 9. (Original) The method of claim 1, wherein:  
2 the step of receiving commands from a user includes receiving user input that  
3 specifies a precompiled routine; and  
4 the method further comprises the steps of  
5 performing an operation that includes converting data, based on said mapping  
6 scheme, from the source to a format associated with the target; and  
7 during performance of said operation, calling said precompiled routine to  
8 affect said operation.

1 10. (Previously Presented) The method of claim 1, further comprising:  
2 reading source data definition that includes information about said plurality of  
3 attributes of said source;  
4 reading target data definition that includes information about said plurality of  
5 attributes of said target; and  
6 based on said source data definition and said target data definition, presenting to said  
7 user an interface that identifies said plurality of attributes of said source and  
8 said plurality of attributes of said target;  
9 wherein said step of receiving commands from said user is performed by receiving  
10 said commands through said interface.

1 11. (Previously Presented) The method of claim 1, wherein said mapping scheme  
2 includes instructions on how to collapse a number of hierarchical levels of said source  
3 into a smaller number of hierarchical levels of said target.

1 12. (Previously Presented) The method of claim 1, wherein said mapping scheme  
2 includes instructions on how to expand a number of hierarchical levels of said source  
3 to a greater number of hierarchical levels of said target.

1 13-16. (Canceled)

1 17. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 1.

1 18-19. (Canceled)

1 20. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 4.

1 21. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 5.

1 22. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 6.

1 23. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 7.

1 24. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 8.

1 25. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 9.

1 26. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 10.

1 27. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 11.

1 28. (Original) A computer-readable medium carrying one or more sequences of  
2 instructions which, when executed by one or more processors, causes the one or more  
3 processors to perform the method recited in Claim 12.

1 29-32. (Canceled)

1 33. (Previously Presented) The method of claim 1, wherein:  
2 a plurality of attributes of said source are related to each other according to a first  
3 hierarchy that includes multiple hierarchical levels;  
4 a plurality of attributes of said target are related to each other according to a second  
5 hierarchy that includes multiple hierarchical levels; and  
6 said commands establish, in said mapping, that a particular hierarchical level of said  
7 source is mapped to a particular hierarchical level of said target, wherein said  
8 particular hierarchical level of said source is at a different depth, within said  
9 first hierarchy, than the depth of said particular hierarchical level of said target  
10 within said second hierarchy.

1 34. (Previously Presented) The method of claim 1, wherein said single  
2 transformation is performed by executing commands defined in a programming  
3 language that supports operations to fetch said set of data directly from said source  
4 and store said set of data directly into said target.

1    35.    (Previously Presented)        The method of claim 1, wherein:  
2        said mapping scheme includes instructions which define that operations included in  
3        said single transformation are grouped to represent a transaction; and  
4        using said mapping scheme to perform said single transformation further comprises  
5        performing said operations in said transaction.

1    36.    (Previously Presented)        A computer-readable medium carrying one or more  
2        sequences of instructions which, when executed by one or more processors, causes  
3        the one or more processors to perform the method recited in Claim 33.

1    37.    (Previously Presented)        A computer-readable medium carrying one or more  
2        sequences of instructions which, when executed by one or more processors, causes  
3        the one or more processors to perform the method recited in Claim 34.

1    38.    (Previously Presented)        A computer-readable medium carrying one or more  
2        sequences of instructions which, when executed by one or more processors, causes  
3        the one or more processors to perform the method recited in Claim 35.